

In re: Tsun et al.
Serial No.: 10/735,096
Filed: December 12, 2003
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REMARKS

Applicants respond herein to each of the issues raised in the Office Action. Applicants submit that the present application is in form for allowance for the reasons discussed below.

Electronic Copy of This Amendment:

As requested by the Examiner at page 2 of the Office Action, an electronic copy of this amendment is submitted herewith.

The IDS Filed With This Application:

An IDS was filed with this application listing various art from the parent application prosecution. As this IDS was not acknowledged by the Examiner, Applicants request the courtesy of a copy, with the next communication in this case, of the PTO-1449 forms from that IDS with the Examiner's initials showing consideration of those references to assure they are listed on any patent that may issue from this application.

The Prior Art Rejections:

Claims 1-12 stand rejected as obvious under 35 U.S.C. § 103 in light of United States Patent No. 5,748,882 to Huang ("Huang") in view of United States Patent No. 6,058,426 to Godwin *et al.* ("Godwin"). Office Action, p. 2. In relying on Huang, the rejection acknowledges that Huang does not disclose a task having an associated work in process queue and an associated work pending queue. Office Action, p. 3. However, the Office Action asserts that Godwin discloses these recitations and that it would be obvious to combine the queue structure of Godwin with Huang "because the task queues provide effective mechanisms for organizing requested lists of managed processes to facilitate processing/handling of the specified tasks/requests." Office Action, p. 3.

To establish a *prima facie* case of obviousness, the prior art reference or references when combined must teach or suggest *all* the recitations of the claims, and there must be

some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. See M.P.E.P. § 2143. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. See M.P.E.P. § 2143.01(citing *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990)). As emphasized by the Court of Appeals for the Federal Circuit, to support combining references, evidence of a suggestion, teaching, or motivation to combine must be clear and particular, and this requirement for clear and particular evidence is not met by broad and conclusory statements about the teachings of references. *In re Dembiczak*, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). In another decision, the Court of Appeals for the Federal Circuit has stated that, to support combining or modifying references, there must be particular evidence from the prior art as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed. *In re Kotzab*, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000).

Furthermore, as stated by the Court of Appeals for the Federal Circuit in *In re Sang-su Lee*, a factual question of motivation is material to patentability, **and cannot be resolved on subjective belief and unknown authority**. See *In re Sang-su Lee*, 277 F.3d 1338 (Fed. Cir. 2002). It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to "[use] that which the inventor taught against its teacher." *W.L. Gore v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 U.S.P.Q. 303, 312-13 (Fed. Cir. 1983). As discussed in further detail below, Applicants submit that the Office Action has failed to establish a prima facie case of obviousness as the cited reference does not disclose or suggest each of the recitations of various of the claims and a proper motivation to combine the references in the manner cited in the claims has not been established.

As an initial matter, Applicant's note that the Office Action asserts that providing a "task configured to properly execute requests which are terminated in progress and restarted from an initial start point" is taught in Huang by "(watchd daemon 104 ... will monitor the process and restart if necessary, p5 16-35)." Office Action, p.2. However,

the daemon 104 is not a task that is restarted and there is no disclosure or suggestion in Huang that the processes that are restarted by the daemon 104 of Huang are configured to properly execute a request that is terminated in progress and **restarted from an initial start point** as recited by Claim 1. In fact, on page 4 of the copy of Huang provided by the Examiner, Huang states:

This operation is termed checkpointing. When process 103 is restarted after it has hung or crashed, another routine in libft code 113 (indicated by arrow 121) permits process 103 **to restore the data in CR MEM 115 from the copy at 125, as shown by arrows 119 and 121 respectively**. Persistent memory 123 also may contain a log file 127, which contains a log of data messages resulting from special I/O read and write operations provided by libft 113. These operations appear as arrows 131 and 129, respectively. When process 113 is restarted, it consumes all of the messages in log file 127 before it begins performing I/O on other files. (emphasis added)

Similar assertions are made in portions of page 5 of the copy of Huang provided by the Examiner ("periodically saving critical memory 115 in critical memory copy 125 so that it can be restored after the process is restarted by daemon 104 "). Thus, rather than restarting from an initial start point, Huang describes a restart utilizing checkpointing to capture a memory state to restart a process already in progress. It follows that, as such additional operations are recited, there is no basis for the Office Action's assertion that the restarted processes of Huang are able to properly execute requests terminated in progress from an initial start point. Accordingly, the rejections of Claim 1 should be withdrawn for at least these reasons.

Furthermore, while Huang relates to restarts for fault-tolerant computing, the secondary reference, Godwin, does not. Rather, Godwin relates to managing distributed computing resources in a local area network. More particularly, the discussion of a queue in Godwin relates to a queue of applications to be started responsive to a request to execute a task received from a client. Godwin, page 7 of copy provided by Examiner ("Task manager 202 ... is the transaction engine that determines the execution of requests from client 302."). In other words, the queues of Godwin are associated with the task manager, not with the applications being started by the task manager. Accordingly, even if Huang and Godwin

could be properly combined, they would merely suggest a queue be provided to the watchd daemon 104 of Huang. Accordingly, the rejections of Claim 1 should also be withdrawn for at least these additional reasons.

Applicants further note that the alleged motivation for combining Huang and Godwin quoted above is merely a generalized assertion that queues may be useful. This motivation is a motivation based on "subjective belief and unknown authority", the type of motivation that was rejected by the Federal Circuit in *In re Sang-su Lee*. In other words, the Office Action does not point to any specific portion of the cited references that would induce one of skill in the art to combine the cited references as suggested in the Office Action. If the motivation provided in the Office Action is adequate to sustain the Office's burden of establishing motivation, then anything useful in some manner would render a combination obvious. This cannot be the case. Accordingly, the statement in the Office Action with respect to motivation does not adequately address the issue of motivation to combine as discussed in *In re Sang-su Lee*. Thus, it appears that the Office Action gains its alleged impetus or suggestion to combine the cited references by hindsight reasoning informed by Applicants' disclosure, which, as noted above, is an inappropriate basis for combining references.

In any event, as discussed above, the restarted application of Huang uses restoration of a checkpoint memory. In contrast, Claim 1 recites not only two particular queues but the interaction of those queues in restarting a task with a request from a work **in process** queue, where the task that is restarted can start from an initial point even though it is drawing from the work in process rather than the work pending queue. As such, there is no basis to support the Office Action's position that one of skill in the art would have added queues and modified a restart process in Huang to arrive at the invention of Claim 1, in particular given Huang's use of checkpointing to restart. Even if the restarted process of Huang were to have queues added from Godwin, the restart would be based on process critical memory state restoration, not on use of those queues as cited in Claim 1. Thus, if anything, Huang teaches away from the combination relied on in the rejections. Accordingly, the rejection of Claim 1 should also be withdrawn for at least these additional reasons.

Independent system and computer program product Claims 5 and 9 should be

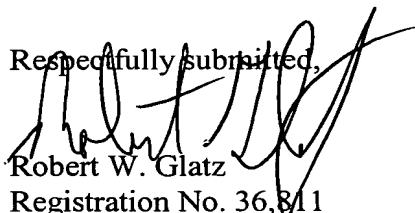
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withdrawn for substantially the same reasons as Claim 1 is patentable based on corresponding recitations therein. The dependent claims should be allowed at least based on the patentability of the claims from which they depend. Various of the dependent claims are also separately patentable. For example, Claims 2, 5 and 10 recite various aspects of the relationship between the queues during the restart process. Applicant respectfully submits that the memory list and queue database of Godwin simply do not correspond to the operation of the recited queues or how they are used in a restart. Accordingly, Claims 2, 5 and 10 are separately patentable for at least these reasons. Newly added dependent Claims 13-15 are also separately patentable based on the recitations therein.

Conclusion

In view of the above, Applicants submit that the pending claims are in condition for allowance and respectfully request allowance of the present application. If further informalities are noted, the Examiner is encouraged to contact the undersigned by telephone to expedite allowance of the present application.

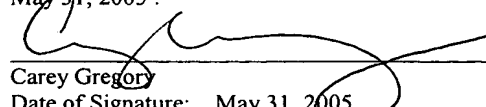
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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Mail Stop Amendment, Commissioner for Patents, PO Box 1450, Alexandria, VA, 22313-1450, on May 31, 2005.


Carey Gregory

Date of Signature: May 31, 2005